

Appl. No. 10/620,715

Amdt. dated July 18, 2006

Supplement to Response C filed in Reply to Office Action dated April 17, 2006

Amendments to the Specification

Please amend the specification on p. 9 by inserting new paragraph [0033A], as indicated below, between existing paragraphs [0033] and [0034]. This language comes from original claim 10, and provides support for amended claim 1, submitted with Response C on June 21, 2006 and further amended with this Supplement to Response C.

[0033A] According to the present invention, a process for producing a composite membrane comprises preparing a homogeneous coating solution containing 8-60% by weight of hydrophobic polymers and 1-40% by weight of hydrophilic polymers, 1-20% by weight of inorganic additives, 1-20% by weight of other organic additives, and the remaining solvent, coating a support with a viscous liquid, which is selected from the group consisting of said homogeneous polymer coating solution, epoxy, polyurethane, silicone, monomer and any other adhesive, to cover the rough surface and defects of said support and to provide a smooth surface and binding for a second coating, coating said support again with either the same solution used for the first coating or a different coating solution containing polymers and monomers which can react with the monomers in the first coating layer, coagulating said polymer coating layers on top of said support to form a defect free composite membrane in a coagulation bath equipped with an ultrasonic device, which generates ultrasonic vibration to enhance mass transfer and to speed up phase inversion from liquid to solid phase of said coating layers, removing said solvents and additives from said coagulated membrane in a leaching bath equipped with an ultrasonic generator to enhance mass transfer, controlling and monitoring coating thickness and coating quality by laser sensor and sending feedback to dope delivery

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system to control dope delivery rate according to detected membrane thickness, collecting said composite membrane at a speed of 5 to 600 feet per minute with a take-up wheel immersed in a water bath equipped with an ultrasonic sonicator to remove chemical residuals from said membrane, switching to another take-up wheel when one wheel is full to continue collecting said membrane, switching membrane collection between two take-up wheels allows a continuous production around clock, curing said membrane either at ambient temperature or at an elevated temperature depending on the adhesives utilized to bond said support and said membrane together, optionally treating said composite membrane with a bleach containing 100 – 120,000 ppm free chlorine at ambient or elevated temperature to increase membrane water permeability by 2 to 10 folds compared to a control membrane never exposed to a chlorine treatment.